

ABSTRACT

When the placement of the elements (mass points, links having inertia, etc.) of a model expressing a robot 1 is determined according to a first geometric restrictive condition from an instantaneous desired motion of the robot 1 that has been created using a dynamic model, this placement is defined as a first placement, and the placement determined according to a second geometric restrictive condition from a corrected instantaneous 10 desired motion that has been obtained by correcting the instantaneous desired motion is defined as a second placement. The corrected instantaneous desired motion is determined such that the moment component calculated from the difference between the first and the second placements approximates a predetermined value. The instantaneous desired motion is created using a dynamic model of the robot. Thus, the motion of the instantaneous desired gait of the robot that has been created using the dynamic model is properly corrected without using a dynamic model, 20 leading to higher dynamic accuracy of an instantaneous desired gait including the corrected motion.